

Title (en)

Analysis of retinal metabolism over at least a portion of a cardiac cycle

Title (de)

Analyse des retinalen Stoffwechsels für mindestens einen Teil eines Herzzyklus

Title (fr)

Analyse du métabolisme rétinien pour au moins une partie d'un cycle cardiaque

Publication

EP 1611840 B1 20080813 (EN)

Application

EP 05253758 A 20050616

Priority

GB 0414570 A 20040629

Abstract (en)

[origin: EP1611840A1] Retinal metabolism is analysed with a retinal function camera over at least a portion of a cardiac cycle by first illuminating a portion of a retina of an eye 10 with light of a first wavelength and producing a first image. The portion of the retina is subsequently illuminated with light of a second wavelength, the first and second wavelengths being selected such that absorptivity of light of the first wavelength by oxygenated blood is greater than absorptivity of light of the second wavelength and the absorptivity of light of the first wavelength by deoxygenated blood is less than absorptivity of light of the second wavelength, to produce a second image. The first and second images are processed to map relative oxygenation of the portion of the retina as an indication of retinal metabolic function of the portion of the retina. The procedure is repeated over at least a portion of a cardiac cycle to analyse metabolic function changes of the portion of the retina within the at least a portion of a cardiac cycle. In some embodiments at least a portion of the retina is subjected to optical stimulation and effects of the optical stimulation on retinal metabolic function analysed.

IPC 8 full level

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CPC (source: EP GB US)

A61B 3/1015 (2013.01 - EP US); **A61B 3/1225** (2013.01 - EP GB US); **A61B 5/021** (2013.01 - EP GB US); **A61B 5/14555** (2013.01 - EP US)

Cited by

US8807751B2; US7926945B2; WO2010143208A3; WO2007009761A3; EP2278909B1

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